



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,119	02/01/2002	Anne-Marie Caminade	P/3610-22	9391
2352	7590	07/14/2004		
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403				
			EXAMINER PRYOR, ALTON NATHANIEL	
			ART UNIT 1616	PAPER NUMBER
DATE MAILED: 07/14/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 09/936,119	Applicant(s) CAMINADE ET AL.	
	Examiner Alton N. Pryor	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 31-33,36-40,42,45-47,49-53,55,56 and 59-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 64 is/are allowed.
- 6) ☐ Claim(s) 31-33,36-40,42,45-47,49-53,55,56,59-63,65-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 31-33,36-40,42,45-47,49-53,55,56,59-63,65-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedstrand et al (US 5560929: 10/1/96).

Hedstrand teaches a composition that can exist in the form of a gel, and the gel can be formulated into a powder. See column 7 lines 16-29. The gel composition comprises Mn, Cu (actives – plant growth regulators) and dendrimer having amino groups such as amine-terminated poly(ethyleneimine) dendrimer. This specific dendrimer has a 2 carbon (ethyl) moiety. See column 6 lines 56-63, column 3 lines 55-64. Hedstrand teaches that the dendrimer comprises a core and branches attached to the core and an amine terminated group for complexing with the Mn, Cu. See column 3 lines 43-64.

Hedstrand teaches that the gel composition can be mixed with a carrier system such as a toluene/water mixture. See column 7 lines 16-40, Hedstrand partially removes solvent to arrive at the powdered form of the dendrimer. See column 7 lines 16-28. Note that Zhang et al (CN 1138945; 1/1/97) discloses that copper and manganese are plant growth regulators. Hedstrand teaches all that is recited in claims except for the composition: having 2-80,000 bonds between Group VA elements; having the 50% releasable active; dimensions of inner cavity and interstitial space; comprising 5-95%

active and 0.5-50% dendrimer; having 28.5/98.5 or 28/28 or 28.8/98.2 dendrimer/water ratio; or having at least 10% dendrimer identical. It would have been obvious to one having ordinary skill in the art to make a composition comprising the optimum number of bonds between Group VA elements, amounts of water, active (releasable), space (cavity) and dendrimer. One would have been motivated to do this in order to develop a dendrimer that would have been effective in associating or chelating with metal ions. It is very possible that the optimum number of bonds, and optimum amounts active, dendrimer, and water would have fallen within the broad ranges claimed.

Allowable Subject Matter

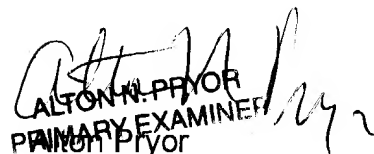
Claim 64 is allowable. Prior art does not teach or suggest the instant invention comprising nitrogen-phosphorus bonds in dendrimers.

Telephonic Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alton N. Pryor whose telephone number is 571-272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz can be reached on 571-272-0887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ALTON H. PRYOR
PRIMARY EXAMINER
Pryor
Primary Examiner
AU 1616